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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,574	10/23/2003	Hiroki Takahashi	244293US2	5964

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EXAMINER

TRAN, VINCENT HUY

ART UNIT	PAPER NUMBER
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2115

DATE MAILED: 03/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/690,574	Applicant(s) TAKAHASHI ET AL.	
	Examiner Vincent T. Tran	Art Unit 2115	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) 2-5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10/23/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-5 are pending for examination.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wingen U.S. Patent 6,895,518 in view of Yamamoto et al. U.S. Patent 5,778,237.

6. As per claim 1, Wingen teach a micro controller unit comprising:
a clock generating circuit [60+50 fig. 1] for generating first [TL1 fig. 1] and second [TL2 fig. 1] clocks having equal phases to each other [col. 3 lines 42-45];
a CPU [40 fig. 1] to be operated based on the first clock;

a peripheral device [12 fig. 1] controlled by the CPU and operated based on the second clock] and

a BIU [20 fig. 1] for controlling operating timing of the first [30 fig. 1] and second [14 fig. 1] buses [col. 1 lines 29-33; col. 2 lines 62-66],

the first and second clocks are input to BIU [CLK1, CLK2 fig. 1], and

the BIU alternately switches idle periods of the first and second buses at predetermined timings which synchronous with the first and second clocks, thereby carrying out the operation timing control [col. 3 lines 23-29].

However, Wingen does not teach expressly the clock generating circuit includes a register for holding setting of frequencies of the first and second clocks to be equal to each other or different from each other, and switches the frequencies of the first and second clocks depending on the setting held in the register with the phases of the first and second clocks maintained to be equal to each other.

Yamamoto et al. teach another clock pulse generator capable of outputting clock signals of different frequencies selectively and a register for reloadably storing control data for designating the frequencies of the clock signals to one or more circuit modules, whereby the selection of the operating clock generator are controlled on the basic of the register stored data [col. 2 lines 38-56]. Specifically, Yamamoto et al. teach a register [65 fig. 16] for holding setting of frequencies of first [91 fig. 16] and second [92 fig. 16] clocks to be equal to each other or different from each other, and switches [942, 943 fig. 16] the frequencies of the first and second clocks depending on the setting held in the register with phases of the first and second clocks maintained to be equal to each other [col. 4 lines 34-63; col. 22 lines 26-43].

At the time of the invention was made, it would have been obvious to one of ordinary skill in the art to have modified the system of Wingen with the clock generating circuit of Yamamoto et al. to control the setting of frequencies of the first and second clocks.

The motivation for doing so would have been to allow each individual functional blocks that exchange data may be advantageously operated at their optimum speed for a specific situation without effecting the operating speed of the other functional blocks.

Allowable Subject Matter

7. Claims 2-5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

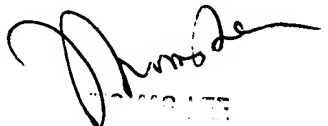
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vincent T. Tran whose telephone number is (571) 272-7210. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas c. Lee can be reached on (571) 272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Vincent Tran



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